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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/883,595	06/18/2001	Ronald E. Pringle	69.0096CIP	1993

7590 03/23/2004  
Schlumberger Technology Corporation  
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EXAMINER
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DANG, HOANG C

ART UNIT	PAPER NUMBER
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3672

DATE MAILED: 03/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/883,595

Applicant(s)

PRINGLE ET AL.

Examiner

Hoang Dang

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*HL*

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 20 February 2004 and 18 August 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-11 and 13-20 is/are pending in the application.
- 4a) Of the above claim(s) 2 and 7 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 3 is/are allowed.
- 6) ☒ Claim(s) 1, 5, 6, 9-11 and 13-20 is/are rejected.
- 7) ☒ Claim(s) 8 is/are objected to.
- 8) ☒ Claim(s) 2 and 7 are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. Claims 5, 6, 10, 11, 13, 14 and 15-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Longbottom et al (US 6,079,494) in view of Mashaw, Jr. et al (US 5,211,241) or Schnatzmeyer (US 5,957,207).

The claimed structure or method steps read exactly on the reference's when plug (56, 56a or 56b) of Longbottom et al '494 is considered as "closure member" or "blocking means" and regulating device (58, 58a or 58b) of Longbottom et al '494 is considered as "sleeve valve" or "choking means" as recited

Longbottom et al discloses the invention as claimed, i.e. "closure member" or "blocking means" (56, 56a or 56b) and "sleeve valve" or "choking means" (58, 58a or 58b). It is not clear whether the sleeve that controls fluid flow through the ports in the tubing portion of Longbottom et al is movable at predetermined increments between an open and a closed position. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to move a sleeve of a variable choke or valve through predetermined increments so that the amount of fluid flow through the choke or valve can be better controlled as evidenced by Mashaw, Jr. et al '241 (see column 1, lines 50-53) or Schnatzmeyer '207 (column 3, line 45 through column 4, line 17 and column 5, line 56 through column 6, line 39).

As for claim 6, see "closure member" 56 or 56a in Longbottom et al.

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As for claims 10-11, the annular space between members 34a and 92 in Figure 4A is considered as the "second bore".

As for claim 13, the "second passageway" (the annular space define between member 34a and 92 in Fig. 4A) in Longbottom et al has a total flow area at least as great as the flow area of the first passageway (the bore of member 92) as recited.

As for claim 14, see column 5, line 42 in Longbottom et al.

As for claims 15-19, the choke 58a controls generally axial fluid flow through the valve from a first end (the bore of member 34a) to a second end (the bore of member 92 above choke 58a) of the valve.

3. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Longbottom et al (US 6,079,494) in view of Mashaw, Jr. et al (US 5,211,241) or Schnatzmeyer (US 5,957,207) as applied to claims 5, 6, 10, 11, and 15-19 above, and further in view of French (US 6,286,594).

Longbottom et al as modified by Mashaw, Jr. et al or Schnatzmeyer, do not disclose that the open position enables full-bore flow. French disclose a sliding sleeve valve for controlling formation fluids into the production tubing. French shows that it is well known in the art to make a sliding sleeve valve such that in its open position the valve is full-bore so that the valve does not therefore restrict the flow of fluid from the reservoir to the surface and does not impede access to the reservoir through the tubing (see column 2, lines 7-11). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the valve or choke (58, 58a) of Longbottom et al full-bore in its fully open position in view of the teaching of French.

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4. Claims 13, 14 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Longbottom et al '494 in view of French '594.

As for claim 13, Longbottom et al do not disclose that the open position enables full-bore flow. French disclose a sliding sleeve valve for controlling formation fluids into the production tubing. French shows that it is well known in the art to make a sliding sleeve valve such that in its open position the valve is full-bore so that the valve does not therefore restrict the flow of fluid from the reservoir to the surface and does not impede access to the reservoir through the tubing (see column 2, lines 7-11). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the valve or choke (58, 58a) of Longbottom et al full-bore in its fully open position in view of the teaching of French.

As for claims 14 and 20, it is well known in the downhole hydraulically operated valve to use a pressurized fluid to bias the valve to the open position and to use a spring to bias the valve to its closed position as shown in French '594 because of the fail-safe feature. To open the valve or choke of Longbottom et al with a pressurized fluid and bias the valve or choke to its closed position would have been obvious to one of ordinary skill in the art in view of the teaching of French '594.

5. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Longbottom et al (US 6,079,494) in view of Mashaw, Jr. et al (US 5,211,241) or Schnatzmeyer (US 5,957,207) as applied to claims 5, 6, 10, 11, and 15-19 above, and further in view of Bouldin et al (US 5,979,558) or Schnatzmeyer (US 5,957,207).

Longbottom et al discloses the invention as claimed except that it is not clear if Longbottom uses a sleeve member having a plurality of ports. However, it would have been

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obvious to one of ordinary skill in the art at the time the invention was made to use such a sleeve because it is well known in the art to provide ports on a sliding sleeve of a variable choke or valve to regulate fluid flow as evidenced by Bouldin et al (see column 5, line 37 through column 6, line 5) or Schnatzmeyer (see column 3, line 47 through column 6, line 24).

6. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mashaw, Jr. et al (US 5,211,241) and Mashaw, Jr. et al (US 5,183,114) in view of French '594.

Mashaw, Jr. et al '241 discloses a sleeve valve 13 that is selectively positionable at and between an open position and a closed position (see column 1, lines 50-53) to regulate the flow through a second passageway (i.e., upward flow through the tubing). Mashaw, Jr. et al '241 is a continuation-in-part of Mashaw, Jr. et al '114. Mashaw, Jr. et al '114 show the production tubing in which the sliding sleeve valve as disclosed in Mashaw, Jr. et al '241 is mounted includes upper and lower packers 15 to isolate formation fluids. The "first passageway" and "closure member" do not distinguish from the annular space between the production tubing 14 and well casing 10 and the upper packer 15 that selectively controls fluid flow through this annular space.

Mashaw, Jr. et al '241 and '114 do not disclose that the valve is full-bore in the open position. French disclose a sliding sleeve valve for controlling formation fluids into the production tubing. French shows that it is well known in the art to make a sliding sleeve valve such that in its open position the valve is full-bore so that the valve does not therefore restrict the flow of fluid from the reservoir to the surface and does not impede access to the reservoir through the tubing (see column 2, lines 7-11). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the valve of Mashaw, Jr. et al '241 as

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modified by Mashaw, Jr. et al '114, full-bore in its fully open position in view of the teaching of French for the advantage pointed out above.

***Response to Arguments***

7. Applicant's arguments with respect to claims 1, 5, 6, 9-11 and 13-20 have been considered but are moot in view of the new ground(s) of rejection.

***Allowable Subject Matter***

8. Claims 3 and 4 are allowed.

9. Claim 8 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hoang Dang whose telephone number is 703-308-2149. The examiner can normally be reached on 9:15-5:45 Monday-Friday.

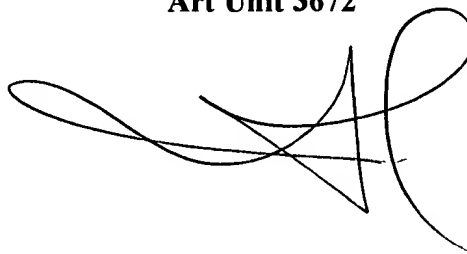
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dave Bagnell can be reached on 703-308-2151. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

**Hoang Dang**  
**Primary Examiner**  
**Art Unit 3672**

09883595.1rej  
March 13, 2004

A handwritten signature in black ink, consisting of a series of loops and a long horizontal stroke, positioned below the printed name of the examiner.